IN THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 10, and ending at page 1, line 20, as follows:

In recent years, the environmental problems such as earth warming due to release of carbon dioxide gas accompanying the use of fossil fuels, radioactive contamination caused by accidents in atomic power ~~plants~~ plants, and nuclear waste ~~are~~ have become serious, and the spotlight centers on terrestrial environment and energy. In this situation, a solar cell utilizing sunlight as an inexhaustible and clean energy source, geothermal power generation utilizing a geothermal source, wind power generation utilizing wind ~~power~~ power, and the like are in practical use in the world.

Please amend the paragraph beginning at page 2, line 13, and ending at page 2, line 20, as follows:

On the other hand, as a method of effectively using electric power generated by a solar cell, a single cell converter system is proposed (See, e.g., ~~U. S.~~ U.S. Patent No. 5,660,643). According to this method, power generated by solar cells, which are not serially connected, as a low voltage of about 1 V, is inputted into an electric power converting device, voltage-boosted there and utilized.

Please amend the paragraph beginning at page 9, line 23, and ending at page 10, line 1, as follows:

In the present embodiment, the reverse current blocking means is provided with control means which, when the main switch device 3 is ON, turns the switch means ON (conductive state), <u>and</u>, on the other hand, when the main switch device 3 is OFF, turns the switch means OFF (non-conductive state).

Please amend the paragraph beginning at page 10, line 4, and ending at page 10, line 13, as follows:

The regenerative means 2 is a switch means which operates complementarily to the main switch device 3. Basically the regenerative means 2 is a switch means similar to the reverse current blocking means 1. However, a diode is not appropriate as the regenerative means 2 since in use of <u>a</u> diode, when the main switch device 3 is turned ON by application of high potential to the gate, the electric current flows to the power source side and power loss is continuously caused while the main switch device 3 is ON.

Please amend the paragraph beginning at page 10, line 14, and ending at page 10, line 22, as follows:

Accordingly, as the regenerative means 2 of the present embodiment, a small-capacity MOSFET or the like is preferably employed as a switch device where the conduction state can be controlled by a control terminal. The regenerative means 2 is provided with control means which, when the main switch device 3 is ON, turns the switch means ON, <u>and,</u> on the other hand, when the main switch device 3 is OFF, turns the switch means OFF.

Please amend the paragraph beginning at page 10, line 23, and ending at page 11, line 13, as follows:

As the switch means used as the regenerative means 2, a small-capacity MOSFET of the same conductive type as that of the main switch device 3 is particularly preferable. By utilizing the relation of the potential that the absolute threshold voltage to turn the gate ON is greater than the absolute voltage of the power source, this switch means can be driven by the power source to drive the main switch device 3. At this time, power loss is caused by gate charge in the small-capacity MOSFET as in the case of the main switch ~~device, however,~~ device. However, as the switch means used as the regenerative means has a small capacity merely to drive the main switch device, the power loss by the gate charge is extremely small in comparison with the power loss in the main switch device. In the case of a small-capacity N-channel MOSFET, having a high performance capability, the gate charge is particularly small.

Please amend the paragraph beginning at page 11, line 22, and ending at page 12, line 1, as follows:

Also, there is no particular limitation on the type of direct current power ~~source 8, however,~~ source 8. However, the output voltage must be lower than the threshold value of the gate voltage to turn the main switch device 3. For example, if the gate voltage to turn the main switch device 3 ON is 2V, the voltage of the power source must be lower, e.g., 1 V.

Please amend the paragraph beginning at page 12, line 2, and ending at page 12, line 11, as follows:

Generally, as a conduction resistance value of a MOSFET changes exponentially with respect to the gate voltage, the threshold voltage to attain a resistance value in an ON state necessary for an application must be appropriately obtained by actual measurement or the like. It is possible to refer to a value described in a data sheet of a device to be ~~used, however,~~ used. However, in this case, attention must be paid to a resistance value of the switch device at that time (often defined as a measurement condition on the data sheet).

Please amend the paragraph beginning at page 14, line 8, and ending at page 14, line 26, as follows:

Further, as the main switch device 3, an N-channel power MOSFET (model number: ISL9N302AP; a product of Fairchild Semiconductor) is used. As an N-channel MOSFET is the most general power device, which more easily attains high performance in comparison with a P-channel device, it is preferably used. Note that in the data sheet of the MOS used in the present embodiment, the threshold voltage is 1.0 to ~~3.0 V, however,~~ 3.0 V. However, as the actually-measured conduction resistance is 10 MW or greater (i.e., OFF state) when the gate voltage is equal to the power supply voltage, 1.5 V, there is no problem regarding the operation of the present embodiment. The threshold voltage to substantially obtain the ON state is far greater than the power source voltage. In this manner, upon implementation of the present invention, it is substantially significant that the main switch device is turned OFF in a status where the power source voltage is applied to the gate of the main switch device.

Please amend the paragraph beginning at page 17, line 16, and ending at page 17, line 26, as follows:

Fig. 3 shows the calculation results of energy recovery amount and the like in the operations of the above embodiment and the conventional art. As shown in Fig. 3, according to the present embodiment, about 30% of the sent energy can be recovered, and more energy sent in the ON state can be saved in comparison with the conventional ~~art, the~~ art. The total amount of the gate driving energy (= transmitted energy - recovered energy) can be reduced about 51%. In this manner, as the gate driving energy can be reduced, the capacity of the gate driving power source can be small.

Please amend the paragraph beginning at page 19, line 5, and ending at page 19, line 15, as follows:

As shown in Fig. 4, the source terminal of the small-capacity MOSFET 200 is connected to the high potential side of the direct current power source 8, and the drain terminal is connected to the gate terminal of the main switch device 3. This is ~~inversed connection to~~ the inverse of normal connection (generally in an N-channel MOSFET, the drain terminal is connected to the positive potential side of the power ~~source), however,~~ source). However, by this connection, discharging (leakage) of stored charge in the gate of the main switch device 3 through the internal diode of the MOSFET can be prevented.

Please amend the paragraph beginning at page 19, line 16, and ending at page 19, line 25, as follows:

Further, from the relation of the potentials, when the main switch device 3 is OFF, the source-gate voltage of the small-capacity MOSFET 200 is 3.8 V ~~(= 5 V - 1.2 V), accordingly,~~ (= 5 V - 1.2 V); accordingly, a device which becomes ON at this voltage must be selected. The small-capacity MOSFET 200 used in the present embodiment satisfies this requirement. The charge stored at the gate of the main switch device 3 is regenerated via the small-capacity MOSFET 200 to the direct current power source 8.

Please amend the paragraph beginning at page 21, line 3, and ending at page 21, line 12, as follows:

The solar power generation system has a solar cell 81 and a capacitor 82 which are parallel-connected as the direct current power source, and respectively ~~2 main~~ two main switch devices 3a, 3b and regenerative blocks 60a, 60b similar to those in the gate driving circuit of the second embodiment. Further, the system has a transformer 40, diode bridges 50a to 50d, and a smoothing filer having a coil 70 and a capacitor 71, for power inversion. The inverted electric power is stored in a secondary battery 90.

Please amend the paragraph beginning at page 22, line 18, and ending at page 22, line 26, as follows:

As described above, the present invention is advantageous in a power inverter such as a push-pull circuit. Especially in a circuit driven on 50% duty such as a push-pull circuit of the present embodiment, as driving signals to the main switch devices 3a and 3b are complementary to each other, the NOT device included in the regenerative block can be omitted

by directly utilizing this ~~relation, thus~~ relation. Thus, the construction of the regenerative block can be further simplified.